

# INDEX

## RUBBER CHEMISTRY AND TECHNOLOGY

### VOLUME V, 1932

#### AUTHORS

	Page
ACKEN, MARSHALL F., SINGER, WILLIAM E., AND DAVEY, WHEELER P. X-Ray Study of Rubber	30
AMON, F. H., AND ESTELOW, R. K. Experiences with a Direct Accelerator Test.	429
ANTONOFF, G. The Plastic State.	129
ANTONOFF, G. The Reinforcement of Rubber.	291
AYERS, JOSEPH W. Impure Iron Oxide as a Rubber Pigment. I.	179
BARRON, H., AND COTTON, F. H. Hysteresis and Reinforcement.	336
BARY, PAUL. Micellar and Molecular Solutions of Rubber.	123
BARY, P. AND FLEURENT, E. The Degradation of Rubber Solutions of Different Concentrations	121
BISHOP, R. O., AND RHODES, E. The Effect of Simple Carbohydrates on the Vulcanization of	
Rubber.	636
BISHOP, R. O., AND FULLERTON, R. G. Variations in Plantation Sheet Rubber.	509
BISHOP, W. S. See Kemp, A. R.	
BOIRY, F. The Effect of Pigments in Rubber.	326
BONDY, H. F. See Staudinger, H.	
BOOTH, E. W. Heat-Resisting Inner Tube Stocks.	409
BOURBON, A. The Vulcanization of Rubber in Concentrated Solution in the Presence of Ultra-	
Accelerators.	630
BRUNI, G. The Minimum of Sulfur Required for Vulcanization.	295
BRUNNER, M. See Staudinger, H.	
BUSSE, W. F. Mastication of Rubber.	164
CAROTHERS, WALLACE H., WILLIAMS, IRA, COLLINS, ARNOLD M., AND KIRBY, JAMES E. Acetyl-	
ene Polymers and Their Derivatives. II. A New Synthetic Rubber: Chloroprene and Its	
Polymers.	7
CHÉNEVEAU, C. The Law of Absorption of Carbon Dioxide by Rubber as a Function of the Time	604
COLLINS, ARNOLD M. See Carothers, Wallace H.	
COTTON, F. H. Mastication. A Preliminary Study.	153
COTTON, F. H. See Barron, H.	
COTTON, F. HARRISS. Lipin from Latex.	365
COUSINS, EDWARD. See McCarty, J. E.	
CROZIER, ROBERT NELSON. See Whithy, George Stafford.	
DAVEY, WHEELER P. See Acken, Marshall F.	
DEKKER, P. See van Rossem, A.	
DEPEW, HARLAN. Reactions during Vulcanization. II. Reaction between Zinc Soaps and	
Mercaptobenzothiazole.	384
DEPEW, HARLAN A. See Jones, H. C.	
DINSMORE, R. P. Laboratory Rubber Testing.	692
DOGADKIN, B., AND PANTESCHENKOW, G. The State of Rubber in Solutions, Based on the Sur-	
face Properties of the Solutions.	249
DRAKLEY, T. J. See Skinner, S. J.	
DRISCH, NICOLAS. See Dufraisse, Charles.	
DUFRAISSE, CHARLES, AND DRISCH, NICOLAS. Applications to Rubber of the Concept of Anti-	
Oxygens and Prooxygens.	318
DUFRAISSE, CHARLES, AND DRISCH, NICOLAS. Experiments on the Autoxidation of Rubber and	
the Catalytic Phenomena Which Are Associated with It.	301
EASLEY, M. K., AND EIDE, A. C. Effect of Cadmium Compounds on Typical Organic Acceler-	
ators during Vulcanization.	393
EIDE, A. C. See Easley, M. K.	
ELLIOTT, L. E. See Martin, G.	
ESTELOW, R. K. See Amon, F. H.	
FEISST, W. See Staudinger, H.	
FLEURENT, E. See Bary, P.	
FUJIHARA, TAKEO. Studies on Rubber in Solution. I. Studies on the Aging of Rubber Solu-	
tions.	618
FULLERTON, R. G. See Bishop, R. O.	
GEHRAN, S. D., AND MORRIS, T. C. Measurement of Average Particle Size of Fine Pigments.	202
GEIGER, E. See Staudinger, H.	
GREENUP, H. W. See Morris, V. N.	
GUPPY, W. D. The Determination of Free Sulfur in Soft Vulcanized Rubber by a Volumetric	
Method.	360
HAUSER, E. A., AND HÜNEMÖRDER, M. A Contribution to the Problem of the Impregnability of	
Cord Threads with Rubber.	685
HENNE, ALBERT L. See Midgley, Thomas, Jr.	
HOLT, W. L. Behavior of Rubber under Repeated Stresses.	79
HÜNEMÖRDER, M. See Hauser, E. A.	
DE JONG, A. W. K., in collaboration with KATZ, J. R. Modification of the Gutta-Percha Hydro-	
carbon.	287

# INDEX

## RUBBER CHEMISTRY AND TECHNOLOGY

### VOLUME V, 1932

#### AUTHORS

	Page
ACKEN, MARSHALL F., SINGER, WILLIAM E., AND DAVEY, WHEELER P. X-Ray Study of Rubber	30
AMON, F. H., AND ESTELOW, R. K. Experiences with a Direct Accelerator Test.	429
ANTONOFF, G. The Plastic State.	129
ANTONOFF, G. The Reinforcement of Rubber.	291
AYERS, JOSEPH W. Impure Iron Oxide as a Rubber Pigment. I.	179
BARRON, H., AND COTTON, F. H. Hysteresis and Reinforcement.	336
BARY, PAUL. Micellar and Molecular Solutions of Rubber.	123
BARY, P. AND FLEURENT, E. The Degradation of Rubber Solutions of Different Concentrations	121
BISHOP, R. O., AND RHODES, E. The Effect of Simple Carbohydrates on the Vulcanization of	
Rubber.	636
BISHOP, R. O., AND FULLERTON, R. G. Variations in Plantation Sheet Rubber.	509
BISHOP, W. S. See Kemp, A. R.	
BOIRY, F. The Effect of Pigments in Rubber.	326
BONDY, H. F. See Staudinger, H.	
BOOTH, E. W. Heat-Resisting Inner Tube Stocks.	409
BOURBON, A. The Vulcanization of Rubber in Concentrated Solution in the Presence of Ultra-	
Accelerators.	630
BRUNI, G. The Minimum of Sulfur Required for Vulcanization.	295
BRUNNER, M. See Staudinger, H.	
BUSSE, W. F. Mastication of Rubber.	164
CAROTHERS, WALLACE H., WILLIAMS, IRA, COLLINS, ARNOLD M., AND KIRBY, JAMES E. Acetyl-	
ene Polymers and Their Derivatives. II. A New Synthetic Rubber: Chloroprene and Its	
Polymers.	7
CHÉNEVEAU, C. The Law of Absorption of Carbon Dioxide by Rubber as a Function of the Time	604
COLLINS, ARNOLD M. See Carothers, Wallace H.	
COTTON, F. H. Mastication. A Preliminary Study.	153
COTTON, F. H. See Barron, H.	
COTTON, F. HARRISS. Lipin from Latex.	365
COUSINS, EDWARD. See McCarty, J. E.	
CROZIER, ROBERT NELSON. See Whithy, George Stafford.	
DAVEY, WHEELER P. See Acken, Marshall F.	
DEKKER, P. See van Rossem, A.	
DEPEW, HARLAN. Reactions during Vulcanization. II. Reaction between Zinc Soaps and	
Mercaptobenzothiazole.	384
DEPEW, HARLAN A. See Jones, H. C.	
DINSMORE, R. P. Laboratory Rubber Testing.	692
DOGADKIN, B., AND PANTESCHENKOW, G. The State of Rubber in Solutions, Based on the Sur-	
face Properties of the Solutions.	249
DRAKLEY, T. J. See Skinner, S. J.	
DRISCH, NICOLAS. See Dufraisse, Charles.	
DUFRAISSE, CHARLES, AND DRISCH, NICOLAS. Applications to Rubber of the Concept of Anti-	
Oxygens and Prooxygens.	318
DUFRAISSE, CHARLES, AND DRISCH, NICOLAS. Experiments on the Autoxidation of Rubber and	
the Catalytic Phenomena Which Are Associated with It.	301
EASLEY, M. K., AND EIDE, A. C. Effect of Cadmium Compounds on Typical Organic Acceler-	
ators during Vulcanization.	393
EIDE, A. C. See Easley, M. K.	
ELLIOTT, L. E. See Martin, G.	
ESTELOW, R. K. See Amon, F. H.	
FEISST, W. See Staudinger, H.	
FLEURENT, E. See Bary, P.	
FUJIHARA, TAKEO. Studies on Rubber in Solution. I. Studies on the Aging of Rubber Solu-	
tions.	618
FULLERTON, R. G. See Bishop, R. O.	
GEHRAN, S. D., AND MORRIS, T. C. Measurement of Average Particle Size of Fine Pigments.	202
GEIGER, E. See Staudinger, H.	
GREENUP, H. W. See Morris, V. N.	
GUPPY, W. D. The Determination of Free Sulfur in Soft Vulcanized Rubber by a Volumetric	
Method.	360
HAUSER, E. A., AND HÜNEMÖRDER, M. A Contribution to the Problem of the Impregnability of	
Cord Threads with Rubber.	685
HENNE, ALBERT L. See Midgley, Thomas, Jr.	
HOLT, W. L. Behavior of Rubber under Repeated Stresses.	79
HÜNEMÖRDER, M. See Hauser, E. A.	
DE JONG, A. W. K., in collaboration with KATZ, J. R. Modification of the Gutta-Percha Hydro-	
carbon.	287

	Page
JONES, H. C., AND DEPEW, HARLAN A. Reactions during Vulcanization. I. Influence of Zinc and Lead on Rate of Cure of Stocks Accelerated with Tetramethylthiuram Monosulfide.....	39
JONES, M. A Short Note on the Tensile Testing of Rubber.....	351
KATZ, J. R. <i>See</i> de Jong, A. W. K.	
KATZ, MORRIS. <i>See</i> Whitby, George Stafford.	
KAWAMURA, JIRO, AND TANAKA, KUNIKITI. Investigations of Colloidal Solutions of Rubber. I. The Influence of the Precipitating Agent on Rubber Solutions.....	626
KEMP, A. R., BISHOP, W. S., AND LASALLE, P. A. Oxidation Studies of Rubber, Gutta-Percha, and Balata Hydrocarbons.....	51
KIRBY, JAMES E. <i>See</i> Carothers, Wallace H.	
KIRCHHOF, F. A Simplification and Improvement in the Determination of Copper in Fabrics and Rubberized Materials.....	356
KIRCHHOF, F. New Condensation Products of Rubber Hydrocarbons by the Aid of Benzyl Chloride.....	110
KITCHIN, DONALD W. Studies in the Vulcanization of Rubber. V. Dielectric Constant and Power Factor of Vulcanized Rubber.....	367
KISTLER, S. S. Coherent Expanded Aerogels.....	600
KOJIMA, KITARO. <i>See</i> Minatoya, Shukusaburo.	
LASALLE, P. A. <i>See</i> Kemp, A. R.	
LEUPOLD, E. O. <i>See</i> Staudinger, H.	
LINHART, GEORGE A. Note on the Absorption of Oxygen by Sheets of Rubber.....	597
MCCARTY, J. E., AND COUSINS, EDWARD. Factory Mixed Stocks.....	705
MACKAY, J. G. Experiments on the Electrodeposition of Rubber from Latex.....	232
MC PHERSON, A. T. A Method for the Purification of Rubber and Properties of the Purified Rubber.....	523
MAIR, JOHN A., AND TODD, JOHN. The Oxidation of Rubber, Gutta-Percha, and Balata with Hydrogen Peroxide.....	587
MARTIN, G., AND ELLIOTT, L. E. The Cause of Variability in the Plasticity of Plantation Rubber after Storage.....	219
MARTIN, G., AND THIOLLET, R. The Influence of Certain Accelerators on the Aging of Rubber.....	320
MARTIN, G., in collaboration with SISLEY, J. An Investigation of the Causes of Spots Which Appeared Spontaneously in Rubberized Fabrics.....	363
MAXWELL, R. B. <i>See</i> Park, C. R.	
MIDGLEY, THOMAS JR., HENNE, ALBERT L., AND RENOLL, MARY W. Natural and Synthetic Rubber. X. Constituents of the Rubber Hydrocarbon.....	537
MIDGLEY, THOMAS, JR., HENNE, ALBERT L., AND RENOLL, MARY W. Natural and Synthetic Rubber. XI. Constituents of the Milled Rubber Hydrocarbon.....	543
MIDGLEY, THOMAS, JR., HENNE, A. L., AND SHEPARD, A. F. Natural and Synthetic Rubber. VIII. Products of the Destructive Distillation of Sodium Rubber.....	1
MIDGLEY, THOMAS, JR., HENNE, ALBERT L., AND SHEPARD, ALVIN F. Natural and Synthetic Rubber. IX. The Products of Destructive Distillation of Ebonite.....	530
MINATOYA, SHUKUSABURO, KOJIMA, KITARO, AND NAGAI, IZUMI. Studies on the Combined Use of Two Different Accelerators. I. Diphenylguanidine and Mercaptobenzothiazole.....	657
MORRIS, T. C. <i>See</i> Gehman, S. D.	
MORRIS, T. C. Solubility of Organic Compounds in Rubber.....	420
MORRIS, V. N., AND GREENUP, H. W. Rubber Latex.....	469
NAGAI, IZUMI. <i>See</i> Minatoya, Shukusaburo.	
NEAL, ARTHUR M., AND NORTHAM, ALFRED J. Some Factors Affecting the Resistance to Flexing.....	90
NORTHAM, ALFRED J. <i>See</i> Neal, Arthur E.	
OKUMURA, K. <i>See</i> Yamazaki, T.	
PARK, C. R., AND MAXWELL, R. B. Temperature Coefficient of Vulcanization.....	192
PANTSCHENKOV, G. <i>See</i> Dogadkin, B.	
PRAWIROPDOERO, R. S. <i>See</i> Van Rossem, A.	
PUMMERER, R., AND VON SUSICH, G. Crystallized Rubber.....	245
RENAUD, PAUL. An Inorganic Rubber.....	585
RENOLL, MARY W. <i>See</i> Midgley, Thomas, Jr.	
RHODES, E. <i>See</i> Bishop, R. O.	
SALADINI, B. The Determination of Sulfur in Rubber by Means of the Calorimetric Bomb....	216
SCHAAL, W. <i>See</i> Staudinger, H.	
SHACKLOCK, CECIL W. Further Studies of Rubber Solutions.....	608
SHEPARD, A. F. <i>See</i> Midgley, Thomas, Jr.	
SHEPARD, NORMAN A., AND STREET, JOHN N. Effect of Curing Temperature on Quality of Vulcanized Rubber.....	442
SINGER, WILLIAM E. <i>See</i> Acken, Marshall F.	
SISLEY, J. <i>See</i> Martin, G.	
SKINNER, S. J., AND DRAKELEY, T. J. The Absorption of Water by Rubber and Its Relation to the Protein Content.....	222
STAMBERGER, P. An Investigation of the Effect of Gas Black on Rubber Solutions.....	146
STAMBERGER, P. Rubber Solutions.....	260
STAUDINGER, H. Isoprene and Rubber. 33. End Groups in Rubber.....	263
STAUDINGER, H., AND BONDY, H. F. Isoprene and Rubber. 34. Molecules or Micelles in a Rubber Solution.....	265
STAUDINGER, H., AND BONDY, H. F. Isoprene and Rubber. 35. Soluble and Insoluble Rubber and the Fractionation of Rubber.....	278
STAUDINGER, H., BRUNNER, M., AND GEIGER, E. Isoprene and Rubber. 30. Hydromethyl-rubber.....	141
STAUDINGER, H., AND FEISST, W. Isoprene and Rubber. 29. High Molecular Hydrorubbers.....	136
STAUDINGER, H., AND LEUPOLD, E. O. Isoprene and Rubber. 37. Homologous Polypranes..	576

STAUDINGER, H., AND SCHAAL, W. Isoprene and Rubber. 28. The Fractionation and Cracking of Hydrorubber.....	131
STEVENS, H. P., AND STEVENS, W. H. The Nature of Vulcanization. IV.....	117
STEVENS, H. P., AND STEVENS, W. H. The Nature of Vulcanization. V.....	645
STEVENS, W. H. <i>See</i> Stevens, H. P.	
STREET, JOHN N. Grit in Carbon Black.....	457
STREET, JOHN N. <i>See</i> Shepard, Norman A.	
SUSICH, G. VON. <i>See</i> Pummerer, R.	
TANAKA, KUNIKITI. <i>See</i> Kawamura, Jiro.	
THIES, H. R. Scorch Retarders and Scorch-Retarding Materials.....	66
THIOLLET, R. Remarks on the Formation of Jellies in Rubber Solutions Containing Ultra-Accelerators.....	206
THIOLLET, R. <i>See</i> Martin, G.	
TODD, JOHN. <i>See</i> Mair, John A.	
VAN ROSSEM, A., DEKKER, P., AND PRAWIRODIPERO, R. S. Vulcanization with Benzoyl Peroxide. I.....	97
WASHBURN, E W. Crystalline Rubber Hydrocarbon.....	119
WEISE, RUDOLF. The Elasticity Constants of Rubber under High Tensions.....	676
WHITBY, GEORGE STAFFORD, AND CROZIER, ROBERT NELSON. Studies of Polymers and Polymerization. IV. Observations on the Polymerization of Isoprene and 2,3-Dimethylbutadiene-1,3.....	546
WHITBY, GEORGE STAFFORD, AND CROZIER, ROBERT NELSON. Studies of Polymers and Polymerization. VI. The Vulcanization of Methyl Rubber.....	566
WIEGAND, W. B. Effect of Overmilling on Compounded Rubber.....	671
WILLIAMS, IRA. <i>See</i> Carothers, Wallace H.	
YAMAZAKI, T., AND OKUMURA, K. Studies on the Aging of Vulcanized Rubber. XI. Consideration of the Influence of Free Sulfur on Aging of Vulcanized Rubber.....	655

## SUBJECTS

	Page
Absorption of Carbon Dioxide by Rubber, Law of.....	604
Absorption of Oxygen by Sheets of Rubber, Note on.....	597
Accelerator-Adsorption Test.....	429
Accelerators, Combined Use of Two Different.....	657
Accelerators on Aging of Rubber, Influence of.....	320
Accelerators, Typical Organic.....	393
Acetylene Polymers and Their Derivatives. II. A New Synthetic Rubber: Chloroprene and Its Polymers.....	7
A Contribution to the Problem of the Impregnability of Cord Threads with Rubber.....	685
Aerogels, Coherent Expanded.....	600
Aging of Rubber.....	320
Aging of Rubber Solutions.....	618
Aging of Vulcanized Rubber.....	655
Aging, Rate of Artificial.....	698
A Method for the Purification of Rubber and Properties of the Purified Rubber.....	523
An Inorganic Rubber.....	585
An Investigation of the Causes of Spots Which Appeared Spontaneously on Rubberized Fabrics.....	363
An Investigation of the Effect of Gas Black on Rubber.....	146
Antioxagens and Prooxagens.....	318
Applications to Rubber of the Concept of Antioxagens and Prooxagens. The Case of Litharge.....	318
A Short Note on the Tensile Testing of Rubber.....	351
A Simplification and Improvement in the Determination of Copper in Fabrics and Rubberized Materials.....	356
Autooxidation of Rubber.....	301
Balata Hydrocarbons, Oxidation Studies of.....	51
Balata, Oxidation of.....	587
Behavior of Rubber under Repeated Stresses.....	79
Benzoyl Peroxide, Vulcanization with.....	97
Benzyl Chloride, New Condensation Products by Aid of.....	110
Bomb, Calorimetric.....	216
Cadmium Compounds.....	393
Carbohydrates, Effect of.....	636
Carbon Black, Grit in.....	457
Carbon Dioxide by Rubber, Absorption of.....	604
Catalytic Phenomena Associated with Autooxidation of Rubber.....	301
Chloroprene and Its Polymers.....	7
Coherent Expanded Aerogels.....	600
Colloidal Solutions of Rubber, Investigations of.....	626
Condensation Products of Crotonaldehyde-Aniline.....	192
Condensation Products of Rubber Hydrocarbons.....	110
Constituents of the Milled Rubber Hydrocarbon.....	543
Constituents of the Rubber Hydrocarbon.....	537
Copper in Fabrics, Determination of.....	356
Cracking of Hydrorubber.....	131
Crotonaldehyde-Aniline, Condensation Products of.....	192
Crystalline Rubber Hydrocarbon.....	119
Crystallized Rubber.....	245
Curing Temperature, Effect of.....	442
Degradation of Rubber Solutions.....	121
Dielectric Constant and Power Factor of Vulcanized Rubber.....	367
Diphenylguanidine.....	651
Ebonite, Distillation of.....	530
Effect of Cadmium Compounds in Typical Organic Accelerators during Vulcanization.....	393
Effect of Curing Temperature on Quality of Vulcanized Rubber.....	442
Effect of Overmilling on Compounded Rubber.....	671
Effect of Simple Carbohydrates.....	636
Electrodeposition of Rubber from Latex.....	232
Experiences with a Direct Accelerator-Adsorption Test.....	429
Experiments on the Autooxidation of Rubber and the Catalytic Phenomena Which Are Associated with It.....	301
Experiments on the Electrodeposition of Rubber from Latex.....	232
Factory Mixed Stocks. Method for Maintaining Uniformity.....	705
Ferric Sulfate, Effect of.....	179
Flexing, Resistance to.....	90, 457
Fractionation of Rubber.....	278
Further Studies of Rubber Solutions.....	608
Gas Black, Effect of.....	148
Grit in Carbon Black. Effect on Flexing Resistance of Vulcanized Rubber.....	457
Gutta-Percha and Balata Hydrocarbons, Oxidation Studies of.....	51
Gutta-Percha Hydrocarbon, Modifications of.....	287
Gutta-Percha, Oxidation of.....	587
Heat-Resisting Inner Tube Stocks.....	409
Hydrocarbon, Constituents of the Milled Rubber.....	537
Hydrocarbon, Constituents of the Rubber.....	543
Hydrocarbons, New Condensation Products of.....	110
Hydrocarbons, Oxidation Studies of Rubber, Gutta-Percha, and Balata.....	51
Hydromethyl Rubber.....	141

	Page
Hydrorubber, Fractionation and Cracking of.....	131
Hydrorubbers, High Molecular.....	136
Hysteresis and Reinforcement.....	336
 Impure Iron Oxide as a Rubber Pigment. I. Effect of Ferric Sulfate on Cure and Aging of Rubber.....	179
Inorganic Rubber, An.....	585
Investigations of Colloidal Solutions of Rubber. I. The Influence of the Precipitating Agent on Rubber Solutions.....	626
Iron Oxide, Impure.....	179
Isoprene and Rubber. 33. End Groups in Rubber.....	263
Isoprene and Rubber. 29. High Molecular Hydrorubbers.....	136
Isoprene and Rubber. 37. Homologous Polypranes.....	576
Isoprene and Rubber. 30. Hydromethyl Rubber.....	141
Isoprene and Rubber. 34. Molecules or Micelles in a Rubber Solution.....	265
Isoprene and Rubber. 35. Soluble and Insoluble Rubber and Fractionation of Rubber.....	278
Isoprene and Rubber. 28. The Fractionation and Cracking of Hydrorubber.....	131
Isoprene, Polymerization of.....	546
Jellies in Rubber Solutions.....	296
Laboratory Testing of Rubber. Its Relation to Service.....	692
Latex, Experiments on Electrodeposition of Rubber from.....	232
Latex, Lipin from.....	365
Latex, Rubber.....	469
Lead on Rate of Cure of Stocks, Influence of.....	39
Lipin from Latex.....	365
Litharge.....	318
 Mastication. A Preliminary Study.....	153
Mastication of Rubber. An Oxidation Process.....	164
Mercaptobenzothiazole.....	192, 384, 657
Method for Purification of Rubber.....	523
Methyl Rubber, Vulcanization of.....	566
Micellar and Molecular Solutions of Rubber.....	123
Micelles in a Rubber Solution.....	265
Milled Rubber Hydrocarbon, Constituents of.....	543
Modifications of the Gutta-Percha Hydrocarbon.....	287
Molecular Solutions of Rubber.....	123
Molecules or Micelles in a Rubber Solution.....	265
 Natural and Synthetic Rubber. XI. Constituents of the Milled Rubber Hydrocarbon.....	543
Natural and Synthetic Rubber. X. Constituents of the Rubber Hydrocarbon.....	537
Natural and Synthetic Rubber. VIII. Products of the Destructive Distillation of Sodium Rubber.....	1
Natural and Synthetic Rubber. IX. The Products of Destructive Distillation of Ebonite.....	530
Nature of Vulcanization.....	654
New Condensation Products of Rubber Hydrocarbons by Aid of Benzyl Chloride.....	110
 Organic Compounds in Rubber.....	420
Oversmilting, Effect of.....	671
Oxidation of Rubber.....	587
Oxidation Process, Mastication of Rubber an.....	164
Oxidation Studies of Rubber, Gutta-Percha, and Balata Hydrocarbons.....	31
Oxygen, Absorption of.....	597
 Pigment, Impure Iron Oxide as a Rubber.....	179
Pigments in Rubber, Effect of.....	326
Pigments, Measurement of Average Particle Size of Fine.....	202
Plantation Sheet Rubber.....	509
Plastic State.....	129
Plasticity of Plantation Rubber after Storage.....	219
Polymerization of Isoprene and 2,3-Dimethylbutadiene.....	546, 566
Polymers, Studies of.....	546, 566
Polypranes, Homologous.....	576
Protein Content, Absorption of Water by Rubber and Its Relation to the.....	222
Purification of Rubber, Method for.....	523
Purified Rubber, Properties of.....	523
 Reactions during Vulcanization. I. Influence of Zinc and Lead on Rate of Cure of Stocks Accelerated with Tetramethylthiuram Monosulfide.....	39
Reactions during Vulcanization. II. Reaction between Zinc Soaps and Mercaptobenzothiazole.....	384
Reactions on the Formation of Jellies in Rubber Stocks Containing Ultra-Accelerators. In- fluence of the Solvent.....	296
Rubber Latex. Recent Scientific and Technical Developments.....	469
Rubber Solutions.....	260, 608
 Scorch Retarders and Scorch-Retarding Materials.....	66
Sodium Rubber, Products of Destructive Distillation of.....	1
Solubility of Organic Compounds in Rubber.....	420
Some Factors Affecting the Resistance to Flexing.....	90
Solutions, Degradation of Rubber.....	121
Solutions, Colloidal.....	626
Solutions, Micellar and Molecular.....	123
Solutions, Molecular.....	123
Spots on Rubberized Fabrics.....	363

	Page
age	
131	219
136	30
336	
179	
585	
Storage, Plasticity of Plantation Rubber after Structure, X-Ray Study of Rubber.	367
Studies in the Vulcanization of Rubber. V. Dielectric Constant and Power Factor of Vulcanized Rubber.	545
Studies of Polymers and Polymerization. IV.	566
Studies of Polymers and Polymerization. VI.	618
Studies on Rubber in Solution. I. Studies on the Aging of Rubber Solutions.	
Studies on the Combined Use of Two Different Accelerators. I. Diphenylguanidine and Mercaptobenzothiazole.	651
Study of Rubber Solutions.	608
Sulfur, Determination of.	216, 360
Sulfur Required for Vulcanization, Minimum of.	295
Synthetic Rubber: Chloroprene.	7
Synthetic Rubber, Natural and.	1, 530, 537, 543
Temperature Coefficient of Vulcanization. Determination for Mixes Accelerated with Mercaptobenzothiazole and a Crotonaldehyde-Aniline Condensation Product.	192
Tensile Testing of Rubber.	351
Tensions, High.	676
Testing, Laboratory Rubber.	692
Testing, Tensile.	351
Tetramethylthiuram Monosulfide.	39
The Absorption of Water by Rubber and Its Relation to the Protein Content.	222
The Cause of Variability in the Plasticity of Plantation Rubber after Storage.	219
The Degradation of Rubber Solutions of Different Concentrations.	121
The Determination of Free Sulfur in Soft Vulcanized Rubber by a Volumetric Method.	360
The Determination of Sulfur in Rubber by Means of the Calorimetric Method.	216
The Effect of Pigments in Rubber.	326
The Effect of Specimen Thickness on Rate of Artificial Aging.	698
The Elasticity Constants of Rubber under High Tensions.	676
The Influence of Certain Accelerators on the Aging of Rubber.	320
The Law of Absorption of Carbon Dioxide by Rubber as a Function of the Time.	604
The Minimum of Sulfur Required for Vulcanization. A Résumé.	295
The Nature of Vulcanization. IV.	117
The Nature of Vulcanization. V.	645
The Oxidation of Rubber, Gutta-Percha, and Balata with Hydrogen Peroxide.	587
The Plastic State.	129
The Reinforcement of Rubber.	291
The State of Rubber in Solutions Based on the Surface Properties of the Solutions.	249
The Vulcanization of Rubber in Concentrated Solution in the Presence of Ultra-Accelerators.	630
The Vulcanization of Methyl Rubber.	566
Threads, Impregnability of Cord.	685
2,3-Dimethylbutadiene, Polymerization of.	546
Ultra-Accelerators, Rubber Solutions Containing.	296
Ultra-Accelerators, Vulcanization of Rubber in Presence of.	630
Variations in Plantation Sheet Rubber.	509
Vulcanization of Rubber. V.	367, 630
Vulcanization, Nature of. IV.	117
Vulcanization, Nature of. V.	645
Vulcanization, Reactions during.	39, 384
Vulcanization, Temperature Coefficient of.	192
Vulcanization with Benzoyl Peroxide. I. Contribution to the Knowledge of the Vulcanization Process.	97
Vulcanized Rubber.	655
Water, Absorption of.	222
X-Ray Study of Rubber Structure.	30
Zinc and Lead, Influence of.	39
Zinc Soaps and Mercaptobenzothiazole.	384



